

### **REMARKS**

This responds to the Office Action mailed on February 14, 2006. By this response, claim 6 was amended. No claims were canceled or added. As a result, claims 1-11 remain pending in this application. Applicant requests reconsideration of this application in view of the above amendments and the following remarks. In addition, Applicant requests an early indication of allowance.

#### **§102 Rejection of the Claims**

**A. Rejection under 35 USC § 102:** Claims 5 and 7 were rejected under 35 USC § 102(e) as being anticipated by Hadas (U.S. 6,597,944).

**B. Response to 35 USC § 102 Rejection:** Anticipation requires the disclosure in a single prior art reference of each element of the claim under consideration. *In re Dillon* 919 F.2d 688, 16 USPQ 2d 1897, 1908 (Fed. Cir. 1990) (en banc), cert. denied, 500 U.S. 904 (1991). It is not enough, however, that the prior art reference discloses all the claimed elements in isolation. Rather, “[a]nticipation requires the presence in a single prior reference disclosure of each and every element of the claimed invention, *arranged as in the claim.*” *Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co.*, 730 F.2d 1452, 221 USPQ 481, 485 (Fed. Cir. 1984) (citing *Connell v. Sears, Roebuck & Co.*, 722 F.2d 1542, 220 USPQ 193 (Fed. Cir. 1983)) (emphasis added).

Claim 5 recites “...placing a solder preform between a metal cover and an insulating base; and applying a current to the solder preform until the solder preform melts to seal a metal cover to the insulating base.” The Examiner contends that elements 43, 45, and 46 of the Hadas reference are solder preforms. According to the Hadas reference, element 46 is a polymeric conductive gel (see column 9, line 49 of the Hadas reference). Elements 43 and 45 are solder layers on copper elements 42 and 44. Copper element 42 is a message-bearing element, and the other copper element is a current-collecting element 44 (see column 9, lines 39-40 of the Hadas

reference). These are not solder preforms. Therefore, it does not appear that the Hadas reference teaches the element of placing a solder preform between a metal cover and an insulating base.

Even if one were to interpret elements 43, 45 and 46 as solder preforms, there is no teaching in Hadas of the element of applying a current to the solder preform until the solder preform melts to seal a metal cover to the insulating base, as recited in claim 5. FIG. 4 of the Hadas reference does teach a metal cover (an optional layer of conductive aluminum foil 47, see column 9, lines 53-54 of the Hadas reference) but there is no teaching of melting a solder preform to seal the metal cover to the insulating base. Rather, the optional conductive foil 47 “...serves to increase the display cell’s conductivity.” (see column 9, lines 54-55 of the Hadas reference). The elements of the Hadas reference, as set forth below, act as a electro-chemical cell. Simply put, there is no teaching of sealing the cover to the insulating base.

”Activation of the display cell is achieved by applying a low voltage source (approximately 3V DC) across copper elements 42 and 44. The positive terminal of the voltage source is connected to message-bearing element 42, and the negative terminal of the voltage source is connected to current-collecting element 44. Copper elements 42 and 44 thus function as electrodes of an electro-chemical cell, with element 42 being the anode, and element 44 being the cathode of the cell. As electric current begins to flow from element 42 to element 44, solder layer 43 begins to dissolve into gel layer 46 off of message-bearing element 42. Initially, over the course of several minutes, the solder of solder layer 43 tarnishes, becoming covered with the black layer of the oxide. Thereafter, once current flow ceases, and depending on the exact composition of gel layer 46, the oxide dissolves into gel layer 46, eventually exposing the red color of copper element 42. If, however, gel layer 46 is removed when current flow ceases, the oxide does not dissolve.

The electrochemical reaction occurring in the display cell is as follows: At the Anode (+):  $\text{Sn} + 2(\text{HO}) \cdot \text{fwdarw} \cdot \text{Sn}(\text{HO}) \cdot \text{sub} \cdot 2$  (black solid), At the Cathode (-):  $2\text{H} \cdot \text{sup} \cdot + 2\text{e} \cdot \text{fwdarw} \cdot \text{H} \cdot \text{sub} \cdot 2$  (gas)

During this electrochemical process, copper element 44 remains plated by solder layer 45, thus serving as a reference color enhancing the readability of the color change induced on message-bearing element 42. Current is then terminated and gel layer 46 removed, so as to expose message-bearing element 42 and allow the user to read the information depicted on the display cell. In this exposed state the cell can be kept indefinitely. Alternatively, if gel layer 46 is transparent and is of such composition that oxide doesn't dissolve into it, then readout can be done and

the display kept without removing gel layer 46 off of the display.” (see column 9, line 56 to column 9, line 23 of the Hadas reference).

Therefore, there is definitely no teaching of the element applying a current to the solder preform until the solder preform melts to seal a metal cover to the insulating base, as recited in claim 5. Accordingly, the Examiner has failed to make a proper *prima facie* case of anticipation with the Hadas reference since Hadas fails to set forth at least one and more than likely both of the elements of claim 5. As a result, the Examiner’s rejection to claim 5 under 35 USC § 102(e) as being anticipated by Hadas (U.S. 6,597,944) is now overcome. Applicant respectfully submits that claim 5 is in allowable form.

Claim 8 recites “...aligning the transparent portion with a beam emergence side of an optoelectronic device; placing a solder preform between the metal cover and the insulating base; applying pressure between the metal cover and the insulating base; and applying a current through the multiple conductive vias to heat the solder preform to melt.” As argued above with respect to claim 5, elements 43, 45, and 46 of Hadas are not solder preforms so the element of placing a solder preform is not taught by Hadas. In addition, there is no teaching of applying a current through the multiple conductive vias to heat the solder preform to melt in the Hadas reference. The elements are part of an electrochemical cell and the current applied is not intended to melt anything, much less the electrodes 43, 45 or the conductive gel 46. Furthermore, there are no conductive vias for carrying the current. Applicant also respectfully submits that there is no teaching of several other elements of the claim. As a result, the Examiner has failed to make a proper *prima facie* case of anticipation with the Hadas reference since Hadas fails to set forth two or more of the elements of claim 8. As a result, the Examiner’s rejection to claim 8 under 35 USC § 102(e) as being anticipated by Hadas (U.S. 6,597,944) is now overcome. Applicant respectfully submits that claim 8 is in allowable form.

Applicant reserves the right to argue whether the Hadas reference is a proper reference under 35 USC § 102(e) and reserves the right to swear behind the reference. Applicant’s setting forth these arguments is not to be considered a waiver for arguing whether the Hadas reference is a proper reference under 35 USC § 102(e) or for swearing behind the Hadas reference.

Allowable Subject Matter

**A. Examiner's Remarks:** Claims 1-4 and 8-11 were allowed.

Claim 6 was objected to as being dependent upon a rejected base claim, but were indicated to be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

**B. Response:** Applicant notes the allowance of claims 1-4 and 8-11 with appreciation. By this amendment, claim 6 was amended to include the rejected base claim and is therefore now in allowable form.

Conclusion

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney at (612) 373-6977 to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

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